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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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Kang Soo Seo

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EXAMINER

SHELEHEDA, JAMES R

ART UNIT

PAPER NUMBER

2424

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DELIVERY MODE

04/12/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 09/876,793 | Applicant(s) SEO ET AL. | |
| | Examiner JAMES SHELEHEDA | Art Unit 2424 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 51-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/16/10 has been entered.

Response to Arguments

2. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 51-53 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 51 recites a "computer readable medium" which is directed to non-statutory subject matter as the broadest reasonable interpretation includes covers both *transitory* and non-transitory forms. Language limiting the claims to a "non-transitory

computer readable medium" would preclude the non-statutory embodiments, such as carrier waves and other transitory mediums.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 51-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (Takahashi) (6,483,983) (of record) in view of Taira et al. (Taira) (6,009,234) (of record), Ando et al. (Ando) (US 2003/0133699 A1) and Uchide (US 2001/0028789 A1) (of record).

As to claim 51, while Takahashi discloses a computer readable medium having a data structure for managing reproduction of menu data, comprising:

a video data area storing one or more playback units of video data (disk area dedicated to storing recorded video; column 9, lines 18-31 and lines 52-61);

a menu data storing area storing menu data for a menu display including a group of menu pictures (thumbnails also recorded on the disk; column 12, lines 7-62), the group of menu pictures including one or more thumbnail pictures, each thumbnail picture corresponding to one of the playback units (thumbnails; column 12, lines 7-62), each thumbnail picture being stored as a block of menu data (picture array menu; column 2, lines 32-54 and column 9, lines 8-51 and column 12, lines 32-56); and

a menu management area storing menu management information, the menu management information providing an index identifying locations for each thumbnail pictures (column 9, lines 8-51 and column 12, lines 20-23 and 49-56),

the thumbnail pictures are decoded and reproduced based on the menu management information (column 5, line 21-column 7, line 7), he fails to specifically disclose the group of thumbnail stored in object units in a menu data file, wherein the menu management information includes information indicating an actual data size of each thumbnail picture, wherein padding data is recorded following the actual data of at least one thumbnail picture.

In an analogous art, Taira discloses a computer readable medium having a data structure for managing reproduction of menu data (Fig. 4 and 5; column 8, lines 25-44 and column 11, lines 38-61) including first (top menu) and second (sub-menu) menu data files (menu cells, 90) including data for a group of thumbnail pictures (Fig. 5; column 11, lines 38-column 12, line 67), the group of thumbnail pictures stored in object units (Fig. 5; column 11, lines 38-column 12, line 26) for the typical benefit of taking advantage of a known method of recording menu data, which would provide a more efficient storage/retrieval method by grouping the data together in units.

Additionally, in an analogous art, Ando discloses a system for managing recording/reproduction of data (paragraph 21-24) which will include information indicating an actual data size of each picture (start/end addresses of the I-Pictures taken together provide the picture size; Fig. 8; paragraph 133-138) for the typical benefit of providing more immediate access to the desired video segment (paragraph 141-142).

Finally, in an analogous art, Uchide discloses a system wherein padding packets are inserted (i.e., appended) between other packets within the video stream (see Fig. 4-5; paragraph 51) prior to recording on a recording medium (3; Fig. 1; paragraph 49-53) for the purpose of ensuring that the stream is correctly recorded by compensating for any differences in the encoding rate vs. the recording rate (paragraphs 48-52).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Takahashi's system to include wherein the groups of thumbnail are stored in object units in a menu data file, as taught in combination with Taira, for the typical benefit of taking advantage of a known method of recording menu data, which would provide a more efficient storage/retrieval method by grouping the data together compared to a system in which the menu data was stored in plural disparate positions.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Takahashi and Taira's system to include wherein the menu management information includes information indicating an actual data size of each thumbnail picture, as taught in combination with Ando, for the typical benefit of providing more immediate access to the desired video segment.

Finally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Takahashi, Taira and Ando's system to include wherein padding data is recorded following the actual data of at least one thumbnail picture, as taught in combination with Uchide, for the typical benefit of ensuring that the stream is

correctly recorded by compensating for any differences in the encoding rate vs. the recording rate.

Claims 54, 57, 60, 63 correspond to Claim 51. Thus, each is analyzed and rejected as previously discussed. (**Note:** the “controller” components to read/write data are disclosed at column 3, line 63-column 4, line 33, column 7, lines 50-57 and column 9, lines 22-31).

As to claim 52, 55, 58, 61, 64, Takahashi, Taira, Ando and Uchide disclose wherein the menu management information includes a starting address and an ending address of each thumbnail picture to indicate the actual data size of each thumbnail picture (see Ando at Fig. 8; paragraph 133-138).

As to claim 53, 56, 59, 62, 65, Takahashi, Taira, Ando and Uchide disclose wherein a number of starting and ending address pairs indicates the number of the thumbnail pictures stored in the first menu data file and the second menu data file (Fig. 8).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES SHELEHEDA whose telephone number is

(571)272-7357. The examiner can normally be reached on Monday - Friday, 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Sheleheda/
Primary Examiner, Art Unit 2424

JS